RAW SEQUENCE LISTING   DATE: 07/24/2001
PATENT APPLICATION: US/09/885,297   TIME: 17:05:03

Input Set : A:\Pto.amc
Output Set: N:\CRF3\07242001\I885297.raw

```
163 <213> ORGANISM: Artificial Sequence
165 <220> FEATURE:
166 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
168 <400> SEQUENCE: 7
169 taatacgact cactataggg                                          20
172 <210> SEQ ID NO: 8
173 <211> LENGTH: 18
174 <212> TYPE: DNA
175 <213> ORGANISM: Artificial Sequence
177 <220> FEATURE:
178 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
180 <400> SEQUENCE: 8
181 taacaatttc acacagga                                            18
184 <210> SEQ ID NO: 9
185 <211> LENGTH: 19
186 <212> TYPE: DNA
187 <213> ORGANISM: Artificial Sequence
189 <220> FEATURE:
190 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
192 <400> SEQUENCE: 9
193 cacgacgttg taaaacgac                                           19
196 <210> SEQ ID NO: 10
197 <211> LENGTH: 30
198 <212> TYPE: DNA
199 <213> ORGANISM: Artificial Sequence
201 <220> FEATURE:
202 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
204 <400> SEQUENCE: 10
205 gactggatgg ttatccgaat aagagagagg                               30
208 <210> SEQ ID NO: 11
209 <211> LENGTH: 8
210 <212> TYPE: DNA
211 <213> ORGANISM: Artificial Sequence
213 <220> FEATURE:
214 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
216 <400> SEQUENCE: 11
217 ggcgcgcc                                                        8
220 <210> SEQ ID NO: 12
221 <211> LENGTH: 11544
222 <212> TYPE: DNA
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: Description of Artificial Sequence:vector
228 <220> FEATURE:
229 <223> OTHER INFORMATION: all occurrences of n to be sequenced
231 <220> FEATURE:
232 <223> OTHER INFORMATION: nucleotide positions 1-1451 ecodes promoter
234 <220> FEATURE:
235 <223> OTHER INFORMATION: nucleotide positions 1452-2735 encodes celZ gene
```

[handwritten: encodes] *[checkmark]*

```
gtagtttatc acagttaaat tgctaacgca gtcaggcacc gtgt atg aaa tct aac   7072
                                                 Met Lys Ser Asn

aat gcg ctc atc gtc atc ctc ggc acc gtc acc ctg gat gct gta ggc   7120
Asn Ala Leu Ile Val Ile Leu Gly Thr Val Thr Leu Asp Ala Val Gly
5                    10                15                      20

ata ggc ttg gtt atg ccg gta ctg ccg ggc ctc ttg cgg gat atc gtc   7168
Ile Gly Leu Val Met Pro Val Leu Pro Gly Leu Leu Arg Asp Ile Val
                    25                30                  35

cat tcc gac agc atc gcc agt cac tat ggc gtg ctg cta gcg cta tat   7216
His Ser Asp Ser Ile Ala Ser His Tyr Gly Val Leu Leu Ala Leu Tyr
                40                45                  50

gcg ttg atg caa ttt cta tgc gca ccc gtt ctc gga gca ctg tcc gac   7264
Ala Leu Met Gln Phe Leu Cys Ala Pro Val Leu Gly Ala Leu Ser Asp
            55                60                  65
```

partial listing of incorrectly numbered amino acids in Sequence 12. Per 1.822 of Sequence Rules, number the amino acids under every 5 amino acid

09/885,297 9

<170> PatentIn Ver. 2.0

<210> 13

delete this — it only appears at beginning of Sequence Listing

fyi

Use of n and/or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.

```
L:10  M:270 C: Current Application Number differs, Replaced Application Number
L:11  M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:435 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:437 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:441 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:443 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:445 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:447 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:449 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:451 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:453 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:455 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:457 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:461 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:463 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:465 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:489 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:493 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:497 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:501 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:505 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:509 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:513 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:517 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:521 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:525 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:529 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:533 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:537 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:541 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:545 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:549 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:553 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:557 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:561 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:606 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:608 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:612 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:616 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:620 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:624 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:628 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:632 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:636 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:640 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
```

Input Set : **A:\Pto.amc**
Output Set: **N:\CRF3\07242001\I885297.raw**

```
L:644 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:648 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:652 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:656 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:660 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:664 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:668 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:672 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:676 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:680 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:684 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:688 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:692 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:696 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:700 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:704 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:12
L:746 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:748 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:750 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:754 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:756 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:758 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:760 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:764 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:766 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:768 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:770 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:772 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:774 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:776 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:778 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:780 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:782 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:784 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:786 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:788 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:790 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:792 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:796 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:798 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:800 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:802 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:804 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:806 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:808 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:810 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
```

Input Set : **A:\Pto.amc**
Output Set: **N:\CRF3\07242001\I885297.raw**

```
L:817  M:280 W: Numeric Identifier already exists, <170> found multiple times
L:922  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:922  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:923  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:923  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:924  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:924  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:925  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:925  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:926  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:926  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:927  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:927  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:928  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:928  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:929  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:929  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:930  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:930  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:931  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:931  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:932  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:932  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:933  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:933  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:934  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:934  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:935  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:935  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:936  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:936  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:937  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:937  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:938  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:938  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:939  M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:939  M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:1015 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:1015 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:1016 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:1016 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:1017 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:1017 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:1018 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:1018 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:1019 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:1019 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
L:1020 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:1020 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17
```

VERIFICATION SUMMARY   DATE: 07/24/2001
PATENT APPLICATION: **US/09/885,297**   TIME: 17:05:05

Input Set : **A:\Pto.amc**
Output Set: **N:\CRF3\07242001\I885297.raw**

L:1021 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17
L:1021 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17